

## ABSTRACT

The invention relates to a sensor arrangement and sensor array with a sensor arrangement for the detection of particles possibly contained in an electrolytic analyte, comprising a working electrode which may be electrically coupled to the electrolytic analyte, with immobilized trap molecules such that in the presence of the electrolytic analyte containing the particles for detection, sensor events occur at the working electrode of the sensor arrangement. Furthermore, an auxiliary electrode which may be electrically coupled to the electrolytic analyte is provided and an operating circuit coupled to the working electrode, embodied such as to maintain an essentially constant potential difference between the working electrode and the auxiliary electrode. The sensor also comprises a device, embodied to maintain an essentially constant ratio between the current flowing to the working electrode and the current flowing to the auxiliary electrode.